



Poetry, science and revolution

The enigma of Herman Gorter's *Pan*

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Abstract. Herman Gorter (1864-1927) became famous as the author of *May* (1889) and *Poems* (1890). His opus magnum *Pan*, published in 1916, hardly acquired any readership at all, which is remarkable, given the monumental size and scope of this unique achievement, celebrating the imminent proletarian revolution and the advent of the communist era: a visionary work of global proportions. Gorter's *Pan* will be assessed as *thinking* poetry, more precisely: as *dialectical materialist* poetry, as a work of art which articulates a dialectical materialist worldview, not only concerning political economy and society, but also concerning nature and the universe as such, from the stars and galaxies of modern astrophysics down to the atoms and molecules of modern chemistry and quantum physics. Gorter's monumental work is 'thinking poetry' in the Heideggerian sense of the term, sensitive to an imminent upheaval of Being as such, as well as a dialectical materialist artwork (albeit with a tinge of Spinozism) contributing (via the 'school of poetry') to a dialectical understanding of space, time, life and matter. In this article, I will focus on two crucial recurring motives: the motif of the shining *crystal* and the motif of the beaming *galaxy*. Via these motifs, so I suggest, Gorter aspires to bridge the gap between his epic-lyrical poetry and twentieth-century science.

Keywords. Herman Gorter; Tachtigers; dialectisch materialism / dialectical materialism; Hegeliaanse dialectiek / Hegelian dialectics, Baruch de Spinoza; het totale kunstwerk / total work of art; hedendaagse epiek / contemporary epic poetry; marxistische poëzie / Marxist poetry; poëzie en communisme / poetry and Communism

Introduction: *Pan*'s reception¹

The Dutch poet Herman Gorter (1864-1927) became famous as the author of the beautiful 4,000 verse poem *Mei* ('May', published in 1889) and the sensitivistic *Verzen* ('Poems', published in 1890). His massive opus magnum *Pan*, however, published in 1916, during World War I, hardly acquired any readership at all,² which is remarkable given the monumental size and scope of this unique achievement: almost 500 pages (more than 11,000 lines) of verse, celebrating the imminent proletarian revolution and the advent of the communist era; a visionary work beyond comparison, not only in the Dutch context, but even on a global level.³

Most critics consider Gorter's masterpiece a failure. Poet Hendrik Marsman calls it a 'monstrous' poem, bewilderingly disordered and often derailing into a desperate stammer or an unpalatable, hieratic freeze.⁴ Communist Willem van Ravensteyn, whose close reading pinpoints numerous compositional flaws, repeatedly speaks of a 'tragic failure'.⁵ And his biographer Herman de Liagre Böhl describes it as a wordy, tedious piece of work, remarkably inconsistent, badly composed, and highly repetitive. He notably deplores the persistent use of key terms such as *star*, *crystal*, *golden*, and so on.⁶ As a lyrical poet, most critics argue, Gorter was not up to his epic task and *Pan* never became a coherent whole.⁷

¹ Earlier versions of this manuscript were presented during lectures (and profited from comments and discussions): (1) 'Filosofie en poëzie: Herman Gorters meesterwerk *Pan*'. Presentatie Themanummer 'Filosofie en poëzie', *Parmentier*. Nijmegen, O'42, juni 1998; (2) 'Herman Gorter: *Pan*'. Festijn van Tachtig. Koninklijk Instituut voor de Tropen, Amsterdam, 27 October 2017.

² 'Gorters *Pan*, het grootste werk van de grootste moderne dichter in Holland, heeft vrijwel geen erkenning gevonden' (Garnt Stuiveling, 'Kroniek van een hartstochtelijk leven', in *Acht over Gorter: Een reeks beschouwingen over poëzie en politiek*, ed. by Garnt Stuiveling (Amsterdam: Querido, 1978), pp. 7-68, p. 54); 'If Herman Gorter's name (1864-1927) is still familiar ... it is more likely to be as a revolutionary propagandist and an opponent of Lenin's strategy at the Third International in 1920 than as the most gifted Dutch poet of his age. At home he tends to be pigeonholed as the author of the poem *May* [while his] Socialist verse is largely neglected'. Paul Vincent, 'Herman Gorter (1864-1927): poet, lover and revolutionary', *The Low Countries: Arts and society in Flanders and The Netherlands. A yearbook*, 19 (2011), pp. 138-147.

³ In terms of size, scope and ambition, his monumental poem can perhaps be compared to Ezra Pound's *Cantos* or Pablo Neruda's *Canto General*. Notably Pound's *Cantos* and Gorter's *Pan* have much in common. Both poets aimed to re-write Dante's *Divine Comedy*. See Henriette Roland Holst-Van der Schalk, *Herman Gorter* (Nijmegen: SUN, 1975), p. 135; Willem van Ravensteyn, *Herman Gorter, de dichter van Pan: een heroïsch en tragisch leven* (Rotterdam: Brussee, 1928). While the disruptive, devastating impact of capitalism on human culture is highlighted, the reader faces major challenges in coming to terms with these 'total' works of art, combining poetry with philosophy and political economy, and conveying totalitarian and problematic political engagements.

⁴ Hendrik Marsman, *Herman Gorter: aantekeningen bij zijn poëzie* (Amsterdam: Querido, 1937), p. 74.

⁵ Van Ravensteyn, *Herman Gorter*.

⁶ Herman de Liagre Böhl, *Met al mijn bloed heb ik voor u geleefd: Herman Gorter 1864-1927* (Amsterdam: Balans, 1996), p. 339.

⁷ A deviant voice was novelist Gerard Reve, who argues that communism saved rather than destroyed Gorter's poetic creativity (in *Brieven aan geschoolde arbeiders* (Utrecht/Antwerpen: Veen, 1985), p. 185). In *Pan*, Gorter tried to achieve the impossible, namely to capture a whole worldview in verse, even succeeding now and again, in astonishing poetry, often wavering between the ridiculous and the sublime. Gorter's poem would have achieved world fame, Reve claimed, had it been written in a world language (See Hub Zwart, 'Filosofie en poëzie: Herman Gorters meesterwerk *Pan* (1998)' www.academia.edu/7895498/Filosofie_en_Poëzie_Herman_Gorters_meesterwerk_Pan). He deplored that Gorter's later work largely remained ignored (Reve 1985, p. 189), also because he had experienced something similar himself:

Others take a more sympathetic (minority) stance. Jan Brandt Corstius agrees that *Pan* poses a challenge to readers, but sees this as inevitable, given the cosmic scale on which the epic is set (with mountains, metropolises and galaxies as ambiance).⁸ Henriette Roland Holst-Van der Schalk explains how Gorter turned to communism to save and revivify his poetry and contain his egocentric passions.⁹ Marx's *Capital* offered him a scientific understanding of society and nature¹⁰ and *Pan* articulates evocative ecstasies experienced on a higher plateau of insight compared to *May*, combining a passion for sublime Alpine nature with societal engagement, visionary lucidity and cosmic awareness (a sensitivity to the cosmic surge). Yet, she does discern a disquieting instability and nervous hypersensitivity, both in Gorter's poem and in Gorter as a person during this stage.¹¹ *Pan* depicts the Proletarian exodus from industrial hell via the purgation of class struggle to a future state of innocence (against a backdrop of cosmic dynamics), but its compositional structure is weak and readers easily become lost in this labyrinthian forest with its endless recurrent epithets such as *star* and *crystal* and its melodramatic declamations. The poet himself seems engulfed by the monstrosity of his task. Yet, even the poet's painful awareness of his failure is credibly captured in verse, rather than obfuscated, thereby contributing to the authentic sense of struggle, creative panic and collapse.¹² The main weakness, as she sees it, is that human figures (workers, their leaders, the Golden Girl, etc.) never become credible living beings, with the exception of the poet himself. Most characters remain phantasmagorical projections, while millions of nameless workers are sacrificed to the dialectical inevitability of violent class struggle.

In this paper, Gorter's poem will be regarded as *thinking* poetry: an artwork which articulates a dialectical materialist view, not only concerning political economy and society, but also concerning nature and the universe as such, from the stars and galaxies of modern astrophysics down to the atoms and molecules of modern chemistry and quantum physics. First, I will outline the conception and genesis of *Pan*, followed by a summary. Subsequently, Gorter's monumental work will be presented as 'thinking poetry' (sensitive to an imminent upheaval of Being as such) and approached from two directions: (a) as a dialectical materialist artwork (with a tinge of Spinozism) contributing (via the 'school of poetry') to Marxist disputes about space, time and matter; and subsequently (b) as an effort to bridge the gap between poetry and science, focussing on two recurring motives: the shining *crystal* and the beaming *galaxy*. The assessment section addresses the question why Gorter's effort to flesh out a dialectical materialist worldview in verse, and to capture a disruptive era in a total work of art, inevitably conveys both grandness and failure.

whilst his debut *The Evenings* was widely applauded, his masterpiece *Mother and Son* (about the conversion of a gay alcoholic to the True Faith, i.e. Catholicism) received much less attention.

⁸ Jan Brandt Corstius, *Herman Gorter: een bijdrage tot de kennis van zijn leven en werk* (Amsterdam: Contact, 1934).

⁹ Roland Holst-Van der Schalk, *Herman Gorter*, p. 13.

¹⁰ Roland Holst-Van der Schalk, *Herman Gorter*, p. 22, 24, 32.

¹¹ Roland Holst-Van der Schalk, *Herman Gorter*, p. 73, 75.

¹² Roland Holst-Van der Schalk, *Herman Gorter*, p. 141.

***Pan's* conception and genesis: from *May* to dialectical materialism**

For Gorter himself, *May* fades into irrelevance compared to *Pan*. Notwithstanding his early successes as a prominent 'Tachtiger' (a group of lyricists who made their debut during the 1880s), and his pioneer experiments in sensitivism (a style of poetry bent on recording fleeting, fragmentary experiences),¹³ Gorter soon became dissatisfied with his early poetry. He considered it too individualistic, too much in accordance with the bourgeois credo *l'art pour l'art*. Inspired by Spinoza's *Ethics* (*Ethica Ordine Geometrico Demonstrata*), a philosophical classic which he translated into Dutch,¹⁴ he became convinced that human affections should be contained in a rational manner, and that truly great poetry needed a solid rational grounding.¹⁵

Perceiving radical sensitivism as a dead-end, Gorter began a desperate quest for a rational base. Notwithstanding his inaptitude for mathematics¹⁶ and his lack of scientific training (in the sense of the *exact* or *natural* sciences), his ideal as a mature poet was to produce poetry *more geometrico*, guided by science and reason, discarding the lyricism of the 1880s as 'bourgeois' poetry: a form of artistic productivity bound to strand in self-glorification and superficial impressionism.¹⁷ Instead of transient impressions, emotions and affections, great poetry should reflect a rational *understanding* of the laws governing the natural and the social world.¹⁸ Although initially fascinated by Spinoza, his focus eventually shifted to political economy, devouring the works of Marx, Engels, Dietzgen, Kautsky and others. *Pan* aimed to bridge the science-poetry divide,¹⁹ moreover, as truly twentieth-century poetry, not only on a par with world politics, but also with cutting-edge research areas such as crystallography and astrophysics.

This same tendency was also reflected in his personal life. Whereas his early friendships (during the 1880s) involved poets (the Tachtigers circle) and other artists (e.g. composer Alphons Diepenbrock), in 1901 he began his life-long affair with Ada Prins, the first woman to receive a

¹³ Herman Gorter, *Poems of 1890: A Selection*, transl. by Paul Vincent (London: UCL Press, 2015).

¹⁴ Baruch de Spinoza, *Ethica*, transl. by Herman Gorter (Den Haag: Loman & Funke, 1895). Gorter's Marxism retains a hinge of Spinozism, e.g. his use of terms such as proof (*demonstratio*), comments (*scholium*), etc. See Herman Gorter, *Het historisch materialisme voor arbeiders verklaard* (Amsterdam: de Tribune, 1908).

¹⁵ This rationalistic turn, this endorsement of rigid thinking (in contrast with the radical impressionism and emotivism of his early poetry) negates the idea that poetic imagination and scientific exactness are incompatible. In Rafael's famous mural *The School of Athens*, poetry and geometry are depicted as juxtaposed. While Pythagoras and Euclid are absorbed in mathematics, Socrates is offering an introductory lesson into logic and Plato carries his *Timaeus* (his most mathematical dialogue), Heraclitus and Epicurus are looking the other way, writing verses to develop a rapport with nature. Whereas the geometric mindset presents nature as a well-ordered, harmonious cosmos, poetic thinkers see nature as chaotic, capricious and transient, as unfathomable and unpredictable. Their body language suggests an insurmountable epistemic rupture between verse writing and deductive logic as rival strategies for understanding nature (Hub Zwart, 'What is nature? On the use of poetry in philosophy courses for science students', *Teaching Philosophy*, 37 (2014): 379-398).

¹⁶ Stuveling, 'Kroniek van een hartstochtelijk leven', p. 20.

¹⁷ Herman Gorter, *De School der Poëzie*. In *Verzamelde Werken II*. (Bussum: Van Dishoeck/Amsterdam: Querido, 1948), p. 443.

¹⁸ Gorter, *De School der Poëzie*, p. 443.

¹⁹ 'It is incredible how beneficial Einstein's theory works for me... I only vaguely comprehend what the secret connections are between science and poetry, but ... precisely this is what I found missing in the recovery of my poetry' (Letter to Jenne, September 1924, in Gorter, *Geheime geliefden*, p. 406).

Ph.D. in chemistry.²⁰ Gorter was deeply in awe of her scientific expertise.²¹ Around the same time (in 1900), his friendship with Anton Pannekoek began: a prominent Marxist, but also a prominent astronomer, member of the Royal Dutch Academy of Sciences, a pioneer in astrophysics, specialised in galaxy research (a moon crater is named after him).²² Marxism not only allowed Gorter to move away from individualism towards a socially engaged style of authorship, but opened up a *scientific* understanding of society, history and nature, thereby offered him a window into the new era. While young Gorter is basically a nineteenth-century Romanticist, the author of *Pan* aims to be a poet of the twentieth-century, addressing the crucial political and scientific challenges of his own era.²³ This also concurs with a shift in ambiance, as the beautiful meadows, ponds and dunes of *May* are replaced by the sublime, forbidding Alpine landscapes and metropolitan killing fields of *Pan*. As radical impressionism had locked him in an ambiance of immediacy and sense perception, he hoped that Marxism (dialectical materialism) would enable him to reach out to the world of chemistry and astrophysics, of industrial metropolises and Faustian machines.²⁴ Marxism offered a scaffold, allowing a stranded late-Romantic lyric poet to reach a new plateau of creativity.

Gorter aspired to become a 'great' poet,²⁵ moreover, and realised that grand poetry is in need of a robust worldview (medieval Catholicism in the case of Dante, early-modern Protestantism in the case of Milton), firmly embedded in socio-economic struggle. Dante articulated the strength and energy of the rising urban bourgeoisie, Gorter argues, but also experienced its insufficiency to overcome the power of feudalism, so that he endorsed the ideology of the reigning feudal class (i.e. medieval Catholicism) by envisioning the ideal state of supreme bliss as something spiritual, unworldly and celestial, as *Paradiso*. Gorter aspired to develop a form of poetry that would reveal how the proletarian revolution (by effectively 'negating' the destructive negativity of Capitalism), would finally manage to realise a paradisiacal ambiance under *terrestrial* conditions, in accordance with the scientific insights of dialectical materialism. Moreover, the poetry of great poets such as Dante, Milton and Shakespeare amounted to much more than only poetry. Dante's *Divine Comedy* is an intellectual encyclopaedia, in which many branches of intellectual activity of his era are addressed, not only literature and theology, but also research practices such as astronomy, alchemy, numerology and economics. And in the

²⁰ They first met in 1899 (see Gorter, *Geheime geliefden*, p. 5)

²¹ De Liagre Böhl, *Met al mijn bloed heb ik voor u geleefd*, p. 272. See their correspondence: 'Je zit nu aldoor ... in de diepzinnige en voor mij onbegrijpelijke spinnewebformules te studeeren? Je bent toch oneindig veel knapper dan ik...' [You are now studying those abstruse and incomprehensible cobweb formula? You are so much smarter than I am] (Letter to Ada, June 1902, in Gorter, *Geheime geliefden*, p. 12); 'Over de Chemie ... weet *niets*, *nix*' [About chemistry ... I know *nothing*, *naught*] (Letter to Ada, 11 November 1913, in Gorter, *Geheime geliefden*, p. 234).

²² 'There was one person whose political insight he trusted unconditionally ... Dr. A. Pannekoek' (Roland Holst-Van der Schalk, *Herman Gorter*, p. 37).

²³ Johan Sonnenschein, 'Arbeid, strijd, schoonheid: de herontdekking van *Pan*', *De Gids*, 181 (2018): <https://de-gids.nl/2018/no5/arbeid-strijd-schoonheid>.

²⁴ 'Er zijn drie reuzenkrachten aan het werk. Wetenschap, techniek en arbeidersklasse' [three giant forces are at work: science, technology and the working class] (Letter to Jenne, 30 December 1913, in Gorter, *Geheime geliefden*, p. 247).

²⁵ Herman Gorter, *De groote dichters: Nagelaten studiën over de wereldliteratuur en haar maatschappelijke grondslagen*, in *Verzamelde Werken VII*. (Bussum: Van Dishoeck/Amsterdam: Querido, 1952).

Netherlands, the Golden Age (the seventeenth century) not only produced great art (Rembrandt, Vermeer, Vondel etc.), but also impressive achievements in techno-scientific domains, in areas such as mathematics (Stevin), physics (Huygens) and biology (Van Leeuwenhoek). Gorter's era, sometimes referred to as the 'second Golden Age' (1880-1920)²⁶ was likewise a prolific period, not only in art (de Tachtigers, Van Gogh, etc.), but also in science, as exemplified by the impressive list of Dutch Nobel Prize laureates in physics during this period.²⁷

Gorter realised that, in order to produce a poetic masterpiece, he would have to reach out far beyond the confines of lyricism and impressionism. Whereas late-romantic poetry represented the ego-centric bourgeois individual,²⁸ a socialist poet should be socially engaged. Marx and Engels claimed to analyse capitalist society in a decidedly *scientific* manner,²⁹ moreover, and Gorter was convinced that great poetry should capture the modern world of politics, science and economics in verse, reflecting a science-based stance. While political economy revived his poetry, Gorter saw his poetic activities, his 'school of poetry'³⁰ as a contribution to the development of a scientific (dialectical materialistic) worldview.

Notably for those who did not (yet) read Gorter's artwork, allow me to present a summary of *Pan*. From what has been said, it will be clear that summarising *Pan* is a hazardous task, but a concise indication of its basic tenet may nonetheless prove helpful (translations are my own).

Summary

Initially dwelling in Alpine mountain landscapes and cosmic galaxies (his natural ambience, Canto I), the god Pan becomes enticed with the Golden Girl (the Spirit of the Music of the Future),³¹ who, before accepting him as her lover, requires a descent to Earth to expose himself to the hardships of modern urban life and to witness a great event: the awakening of the downtrodden, who are bound to become the humanity of the future ('de toekomstmenschen', p. 41). As Jacqueline Bel phrases it, the Golden Girl urges the old god to undergo an awareness training program.³²

In Canto II, Pan finds the working classes living under conditions of extreme poverty and exploitation. In an industrial environment he hears the sounds of heavy machines, the growling of factory halls and the Wagnerian music of metal tools. Dark masses of workers are marching

²⁶ Bastiaan Willink, 'Origins of the Second Golden Age of Dutch Science: Unintended Consequences of Educational Reform', in *Social Studies of Science*, 21 (1991), pp. 503-526.

²⁷ Van 't Hof [1901], Lorentz [1902], Zeeman [1902], Van der Waals [1911], Kamerlingh Onnes [1913].

²⁸ 'Ik was vroeger [...] op en top individualist. Je kunt je haast niet voorstellen hoe ver ik dat dreef [I used to be ... a downright individualist. You cannot imagine to what extremes I pushed it] (Letter to Ada, 2 August 1905, in Gorter, *Geheime geliefden*, p. 70); cf. Vincent, *Herman Gorter*.

²⁹ Friedrich Engels, 'Die Entwicklung des Sozialismus von der Utopie zur Wissenschaft', in Karl Marx & Friedrich Engels, *Werke*, Band XIX (Berlin: Dietz Verlag, 1880/1962), pp. 177-228.

³⁰ Gorter, *De School der Poëzie*.

³¹ Herman Gorter, *Pan: een gedicht*, in *Verzamelde Werken V* (Bussum: Van Dishoeck/Amsterdam: Querido, 1916/1951), p. 32.

³² Jacqueline Bel, *Bloed en rozen. Geschiedenis van de Nederlandse literatuur 1900-1945* (Amsterdam: Bert Bakker, 2015), pp. 459-462.

through a dreary metropolis towards their factories. They have Nothing (p. 101). Nature has been fully exploited, and now there is nothing left. Everything is transformed into something abstract, namely Capital. Yet, there are glimpses of a bright and dawning future and Pan vaguely expects salvation from music and poetry.

In Canto III, Pan wanders through a dreary world of giant factories where the sound of labour is omnipresent. The gods have left the earth and the final battle for the salvation of humanity is drawing near, but the workers are undecided. They do not yet know what they think, their moment of spontaneous lucidity has not yet arrived. They are the slaves of their machines, toiling like the Nibelungen in *Das Rheingold*. Suddenly, they attack their machines with their hammers. Called by Nothing, the workers gather and look at each other in silent amazement. Labour congregates to face the monster Capital.

Canto IV envisions their uprising. As soon as they put down their work, the web of technology and machinery comes to a standstill (p. 299), as if transformed into something inorganic, into *Nothing* (p. 306). The workers awaken and the universe opens up as infinite, sparkling spacetime, and *Pan* becomes a hymn on matter, a song of praise of atoms and crystals, and of workers as the crystals of society. Pan, the god of music and poetry, seems to understand the flocking workers, seems to discern their collective will. They must become one and equal to nature. Pan joins a series of meetings where immense figures present declamatory speeches. An event of global significance is surging, in the philosophical sense of *Ereignis* or *événement*. The congregated workers rise to sing the International and the slaves cry out for happiness. The workers set up councils and embrace their tools. Nature as such is transfigured into a giant workshop, an immense factory, while factories now resemble mountainous landscapes:

Zoals een berg lag daar de open fabriek! Hoog de staalbruggen en de staalstaven! Waterval Van staal leek van de hoge transportbruggen Omlaag te komen naar de donkere grond ³³	Like a mountain the factory lay open! High The steel bridges and the steel bars! Cascade Of steel from the high transport bridges Seemed to descend towards the dark ground.
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Then the final battle commences:

En dien nacht werden op de heele aarde De wapenmagazijnen der patroons Bestormd. Miljoenen stierven, het geluk Was hier met de arbeiders, daar met de legers, En een reusacht'ge eindstrijd ging beginnen Met 't eerst opalen lichten van den dag. ³⁴	That night, everywhere on Earth The armouries of the bosses were Stormed. Millions died. Good fortune was Here with the workers, there with the armies, And a titanic final battle commenced With the first opal dawning of the day.
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³³ Herman Gorter, *Pan: een gedicht*, in *Verzamelde Werken V* (Bussum/ Amsterdam: Van Dishoeck/Querido, 1916/1951), p. 293; Herman Gorter, *Pan: een gedicht* (Amsterdam: Versluys, 1916), p. 329. In my translations, page numbers refer to Volume V of the *Verzamelde Werken* (Gorter 1916/1951) and to the 1916 version of *Pan* (Gorter 1916) respectively. The 1916 edition was actually the second ('zeer veel vermeerderde') version because it replaced a previous edition (significantly smaller) which had been published in 1912 and is often referred to as the 'small Pan' / *Kleine Pan* (Herman Gorter, *Pan*, in *Verzamelde Werken IV*. (Bussum/Amsterdam: Querido/Van Dishoeck, 1912/1950), pp. 95-248.

³⁴ Gorter (1916/1951), p. 334; Gorter (1916), p. 376.

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The number of casualties is staggering. Workers die in large numbers: hundreds of thousands of them die like flowers, bleeding like flowers in the snow, falling and dying like smiling flowers on the pavement,³⁵ while churches and palaces are consumed by fire (p. 359). During this bloody Gigantomachia, this ‘socialist apocalypse’,³⁶ the workers willingly and collectively sacrifice themselves, they ‘decide’ to die,³⁷ but after many drawbacks and dramatic defeats, the signal sounds at last.

In Canto V, the miracle has happened, the workers have gained victory. Time and space give way to blueish, beaming spacetime. Planet Earth becomes one giant workshop (p. 396). The workers are free now: golden, whirring machines work for them. While workers are dancing and playing, machines are buzzing. Labour becomes a dance, science and poetry converge. The wonderful world organization illuminates the earth. Immeasurable crowds of people consume Gargantuan meals in communist palaces (p. 402). Everything happens freely and well-planned:

De Aarde was één heerlijk Organisme Van wel geregeld en hoogst Communisme. De Aarde was één Geheel, een Organiek Een klaar en hoog en helder Musicisme, Het rijk en zegevierend Communisme... ³⁸ De Machines gonsden wel ongestoord Als vrije wezens op zich zelve voort, - Aan alle kanten gonsden de machines In Paleizen, in Natuur, ongeziene, - ³⁹	Planet Earth was one delightful Organism Of well-organised, highest Communism. The Earth was one organic whole, A clear and lofty musicism, Splendid victorious Communism... The machines kept buzzing undisturbed Like free beings in themselves, - On all sides the machines were buzzing In palaces, in nature, unnoticed, -
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In the centre of the metropolis, the beautiful meeting palace of the workers has arisen: the unity of mankind in stone:

En Pan en de Geest zagen een Gebouw, Tusschen alle gebouwen rondom rijzend, Optrekken voor 't Heelal en de Menschheid ten schouw, En langzaam in de hoge luchten deinzend. Het was een schitterende vergaderplaats Voor de menschheid...	And Pan and the Spirit saw a building Amidst all the surrounding buildings emerging, Surging before the universe, for all humanity to see, And swaying slowly up in the high airs It was the splendid congregation hall For all the people...
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³⁵ Gorter (1916/1951), pp. 356-359. ‘The description of something so terrible should at the same time be lovely and beautiful. Awful loveliness’ (Letter to Jenne, December 1913, in Gorter, *Geheime geliefden*, p. 246).

³⁶ Theo Sengers, *Dichters en God: het godsbeeld in de nieuwe Nederlandse lyriek 1880-1940* (Nijmegen: KUN, 1952).

³⁷ Gorter (1916/1951), p. 360.

³⁸ Gorter (1916/1951), p. 405; Gorter (1916), p. 456.

³⁹ Gorter (1916/1951), p. 406; Gorter (1916), p. 457.

Want het gebouw was de eenheid Der menschen, – zoals de liefde die voelt in algemeenheid – Gebracht door de kunstenaar zijn hart tot steenheid ⁴⁰	For this building was the unitedness Of the people – such as love feels it in universality – Wrought by the artists' heart to stoneness
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Pan and the Golden Girl unite. Their embrace is envisioned as a frenzied, Homeric coitus, enacted by gigantic, entangled, statuesque human beings:

En de Geest der Muziek ontkleedde zich... En de Geest der Muziek legde zich neder... Zachte muziek kwam toen in haar op... Pan en het Meisje lagen heel den nacht En duizend dage' en nachte' in elkaar verloren, En kwamen uit elkaar niet meer te voren... ⁴¹	And the Spirit of Music undressed herself... And de Spirit of Music laid herself down... Soft music arose in her... Pan and the Girl lay the whole night And thousand days and nights, lost in each other And emerged from each other no more...
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Let his suffice as a first exploration. I will now present Gorter's *Pan* as thinking poetry.

***Pan* as thinking poetry**

Pan is a visionary epic, an epic of the future, a dramatic enactment of things which are to come. The author is a 'thinking poet' or 'poetic thinker', as Heidegger phrased it,⁴² whose poetry entails a seismographic envisioning of the dawning era. *Pan* discloses the ambiance where the new epoch will emerge, the epochal turn will surge: poetry as a moment of truth (ἀλήθεια), celebrating the advent of a new era of Being, a new truth regime. The hero of the tale, the recipient of the message, is the proletariat: the humanity (δῆμος) of the future. *Pan* conveys a moment of revelation, as nature (φύσις) reveals itself as overwhelming and *sublime* (in contrast to the *beautiful* nature of bourgeois poetry). Gorter's *Pan* conveys a basic mood of enthusiasm, or divine madness even (θεία μανία), extolling the advent of a revolution: in politics, but also in poetry and science.

The signifier 'Pan' has multiple meanings. First of all, Pan is the oldest god, the primordial deity of pastoral landscapes, rustic sceneries and mountain wilds, who returns to Earth with his flute to witness the dawning of a utopian, neo-pastoral landscape. Literally, however, the Greek term Πάν means 'everything', so that Pan also symbolises everything there is, Being as such: the Spinozist concept of *natura naturans* or world-substance. Finally, *Pans* was Gorter's life-long nickname. He often signed his letters (especially those to his Muse Jenne Clinge Doorenbos) with 'Pan'.⁴³ Therefore, the figure Pan voices and enacts the poet's own experiences: his passionate erotic longings for semi-mythical golden girls, his loneliness and isolation, his aptitude for poetry

⁴⁰ Gorter (1916/1951), p. 407; Gorter (1916), p. 459.

⁴¹ Gorter (1916/1951), p. 430; Gorter (1916), p. 493.

⁴² Martin Heidegger, 'Wozu Dichter', in *Holzwege* (Frankfurt am Main: Klostermann, 1957), pp. 248-295.

⁴³ Gorter, *Geheime geliefden*.

and songs, his political naiveté (notably exhibited during numerous visits to factories and political meetings), his uninhibited political enthusiasm, his unwavering trust in the possibility of the spontaneous, self-organisational emergence of the Golden Age, resulting in his endorsement of a totalitarian political philosophy.

Gorter's *Pan* not only envisions (in dark colours) the reign of capitalism as the abyss (the night of the world),⁴⁴ the moment of emiseration (*Verelendung*) and alienation (*Entfremdung*), but also the coming of a new golden age, when golden machines will do the work, while labourers spend their time dancing and playing games (the Proletariat as the communist version of *homo ludens*). Pan is Gorter's Zarathustra, who descends from the alpine mountains to announce the death of capitalism and the rise of humankind towards an era of genuine freedom. Indeed, *Pan* concurs with what Carl Gustav Jung refers to as *visionary* poetry,⁴⁵ comparable to Dante's *Divine Comedy*, Goethe's *Faust*, Wagner's *Ring des Nibelungen* and Nietzsche's *Thus spoke Zarathustra*.⁴⁶ From a Jungian perspective, Gorter was overwhelmed and dragged along by the intensity of the idea which expresses itself in his poem, symbolised by Pan; much like Nietzsche was overwhelmed and dragged along by the idea symbolised by Zarathustra, whose mouthpiece he became.⁴⁷ *Pan* is an ecstatic work of art, written in a chiliastic mood. Like Zarathustra, moreover, Pan is an enlarged, inflated version of the author himself, who eventually fails to reach his audience, beyond a very small circle of devotees.

The communist metropolis of the future is Gorter's version of the New Jerusalem, whose centrepiece is a gigantic conference hall, the meeting palace ('vergaderpaleis'). Notwithstanding the Messianistic tenor of these lines, Gorter's vision (θεωρία) claims to be grounded in rational theory and to predict the imminent convergence of science, art and politics:

En zij gingen naar binnen en zij hoorden... Der wetenschap de juiste en helle akkoorden: De Wetenschap was Poëzie geworden ⁴⁸	And they went inside and heard... The clear and precise chords of science: Science had become poetry
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⁴⁴ 'Im Weltalter der Weltnacht muss der Abgrund der Welt erfahren und ausgestanden werden. Dazu ist aber nötig, dass solche sind, die in den Abgrund reichen...' Heidegger, *Wozu Dichter*, pp. 248-249.

⁴⁵ Carl Gustav Jung, 'Über die Beziehungen der analytischen Psychologie zum dichterischen Kunstwerk', in *Gesammelte Werke*, Band XV (Düsseldorf/Zürich: Walter, 1922/1971), pp. 75-96; Carl Gustav Jung, 'Psychologie und Dichtung', in *Gesammelte Werke*, Band XV (Düsseldorf/Zürich: Walter, 1930/1971), pp. 97-120.

⁴⁶ When Henriette Roland Holst speak about the views of 'modern psychiatry' on creativity (*Herman Gorter*, p. 94), she is referring to Carl Gustav Jung's 'Psychologische Typen'; cf. Wilhelm Ostwald, *Große Männer* (Leipzig: Akademische Gesellschaft, 1909). In contrast with classical personality types (Spinoza), Gorter represents the Romantic artist: restless, charismatic, impatient, eruptive, Dionysian. Their output is far from flawless. Often, they are famous at a very young age, but their subsequent trajectory entails multiple dramatic vicissitudes and turns: the price they pay for their gusts of productivity ('göttliche Raserei').

⁴⁷ Carl Gustav Jung, *Seminar on Nietzsche's Zarathustra*, ed. by J.L. Jarrett (Princeton: Princeton University Press, 1998).

⁴⁸ Gorter (1916/1951), p. 398; Gorter (1916), p. 447.

This is a crucial phrase for understanding *Pan* as 'thinking poetry'. *Pan* is a poetic laboratory designed to function as the artistic equivalent of budding research fields such as crystallography and astrophysics. Gorter aspires to demonstrate how, under communist conditions, science as such will be transfigured, will *sublimate* into poetry, while poetry becomes science. In dialectical terms: in the future state of communism, the science-poetry divide will be 'sublated' (*aufgehoben*) as the brutal noise of factories gives way to the crystal-clear music of scientific precision instruments: no longer owned by a privileged (bourgeois) scientific elite, but common (universal) property. This core dialectical insight is exemplified, I will argue, by two key signifiers which appear again and again, almost obsessively, in *Pan*, namely the signifiers *universe* and *crystal* (*heelal* and *kristal*), often used in combination. They appear much more frequently in the expanded 1916 version, moreover, notably in the *Prelude* and the new Cantos II and III, than in the first (more balanced) 1912 edition. Before focussing on the role of these two key terms, however, I will first position *Pan* against the backdrop of (and as a poetic contribution to the development of) the communist worldview: dialectical materialism. In his brochure *Historical Materialism explained to Workers*,⁴⁹ Gorter already criticizes the 'bourgeois' idea that we only know things as appearances, thereby obfuscation of the existence of matter, but to really develop this conviction, he needed *Pan*.

***Pan* and dialectical materialism 1: Joseph Dietzgen**

What is dialectical materialism? Although Friedrich Engels (even more than Marx) has been credited for developing the dialectical materialistic worldview, in treatises such as the *Anti-Dühring* and *Dialectics of Nature*,⁵⁰ he strictly speaking never used the term. The neologism 'dialectic materialism' was coined by Joseph Dietzgen in 1869 in his book *Das Wesen der menschlichen Kopfarbeit* [The nature of human brainwork], translated by Gorter.⁵¹ Dialectical materialism is presented as a form of dialectics which allegedly supersedes Hegelian dialectics, which had become 'reactionary'.⁵² Gorter and Pannekoek devoured Dietzgen's book and considered him one of the most prominent theoreticians of Marxism. Pannekoek discovered this rare, virtually unknown booklet – a remarkable blend of Marxism and Spinozism⁵³ – in Germany (where he lectured at a training centre of the Social Democratic Party in Bremen) and visited

⁴⁹ Gorter, *Het historisch materialisme voor arbeiders verklaard*. Gorter's brochures were quite influential, especially in Germany, and via Germany reaching China, where Gorter's 1908 brochure probably contributed to the budding convictions of Mao Zedong (see Nick Knight, 'Herman Gorter and the Origins of Marxism in China', *China Information*, 19 (2005): 381-412).

⁵⁰ Friedrich Engels, 'Dialektik der Natur', in K. Marx & F. Engels, *Werke*, Band 20. (Berlin: Dietz Verlag, 1883/1962), pp. 305-570; Friedrich Engels, 'Herrn Eugen Dührings Umwälzung der Wissenschaft (Anti-Dühring)', in K. Marx & F. Engels, *Werke*, Band XX. (Berlin: Dietz Verlag, 1878/1962), pp. 1-303.

⁵¹ Herman Gorter, *J. Dietzgen: Het wezen van den menschelijken hoofdarbeid* (Amsterdam: Fortuyn, 1903/1917).

⁵² 'Het idealisme van Hegel. Er zit een prachtige waarheid in, het is het hoogst ontwikkelde filosofische ideale systeem, maar na Hegel hebben natuurwetenschap en maatschappijwetenschap zijn ideeën weer gedeeltelijk overtroffen' [there is a splendid truth in Hegel's idealism, it is the most advanced philosophical ideal system, but after Hegel, natural science and social science have to some extent surpassed his ideas] (Letter to Ada, 4 April 1904, in Gorter, *Geheime geliefden*, p. 42).

⁵³ Anton Pannekoek, 'Introduction', in: Joseph Dietzgen, *The nature of human brain work/Letters on logic/The positive outcome of philosophy*, transl. by E. Untermann (Chicago: Kerr, 1906).

Gorter in his home in Bussum in 1900 to show it to him – the beginning of an important political friendship.⁵⁴ Both friends would become prominent spokespersons of a left-wing German version of communism known as council communism ('radencommunisme'). Gorter depicts Dietzgen in *Pan* as an isolated Marxist genius, an archetypal wise man (who kindly explains to him how 'the mind discovers the universal laws, being the organ of the general...', etc.⁵⁵

Dietzgen discusses dialectical materialism in a chapter entitled *The Nature of Things*, arguing that we only know things through their outward appearance: as phenomena of sense perception. Yet, materialism posits the objective existence of matter as something which changes continuously, but ultimately remains indestructible. There can be no phenomena without material substance (i.e. things and processes) producing them, but we only know this via the phenomena (via our experiences of external things and events). It is our brain's work to move from sensations to things, from multiplicity to unity, from partiality to wholeness, from perception to substance, from the perishable to the imperishable. And here, Dietzgen adopts a Spinoza-like tone of voice, which must have appealed to Gorter, claiming that the mind conceives the universe as *one substantial unity*. According to Dietzgen, the universe is *the substance* (substance in general) and all concrete substances (entities) are but attributes. It is the work of the thinking brain to arrive at this concept of a world-substance by moving away from dissatisfying phenomena and groping for the nature of things. This had been Gorter's itinerary as a poet.

Dietzgen's book (published in 1869) evidently reflects the worldview of nineteenth-century science, so that his viewpoints (like those of Engels) pre-date the scientific revolution (notably the crisis of classical physics) which commenced around 1900, the year in which Max Planck introduced the quantum concept. To understand *Pan* against the backdrop of Marxist philosophy (dialectical materialism), we must realise that Gorter aspired to come to terms with *twentieth-century* science, notably the epistemological challenges presented by revolutionary research fields such as quantum physics and relativity theory, as is also reflected by one of his last (unpublished) verses, entitled *Contemplation after reading Einstein's theory* ('Overpeinzing na het lezen van Einstein's theorie'),⁵⁶ once again addressing two key themes ('heelal' and 'kristal'):

De drie laatste begrippen in 't heelal, Die nog vast stonde' in dat donker kristal, Tijd, ruimte, massa, zijn dat dus niet meer. Ze zijn beweeglijk en – als alles – teer.	The final three concepts in the universe Which still lasted in that dark crystal, Time, space and mass, last no longer, They are modifiable and, like everything, fragile.
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Even the basic concepts which nineteenth-century Marxists firmly held on to (time, space and mass) are obliterated by the scientific revolution. How to rethink these concepts from a dialectical

⁵⁴ Liagre Böhl, *Met al mijn bloed heb ik voor u geleefd*, p. 253.

⁵⁵ Gorter (1916/1951), p. 148; Gorter (1916), p. 163.

⁵⁶ Gorter, *De groote dichters*, VIII, p. 110. Cf. 'Do you know what I often do here? I study Einstein's theory... Do you know what I begin to understand now? That this is the starting point of the worldview that will hold sway under communism... but my mathematics and physics are insufficient' (Letter to Jenne October 1921, in Gorter, *Geheime geliefden*, p. 370).

materialist position? Gorter intended to address this challenge, and to contribute to Marxist theory, *via poetry*: via the *school* of poetry, as he phrased it.

Thus, to assess *Pan* as poetic thinking, as dialectical materialism in verse, we need a more contemporary benchmark than Engels or Dietzgen, and this, I would argue, is provided by W.I. Lenin's book *Materialism and Empirio-criticism*, published in 1908. Lenin later also became the target of what is perhaps Gorter's most well-known political publication, his *Offener Brief an den Genossen Lenin*, published in 1920, a lengthy rejoinder in which council communism is passionately defended.⁵⁷ Council communism is a spontaneous bottom-up revolutionary conception, seeing worker's councils ('soviets' in Russian, 'Arbeiterräte' in German) as the basic political units, both of the proletarian revolution and of a future communist state. In 1917, after his return from Swiss exile, Lenin temporarily endorsed this idea ('All power to the Soviets!'), but he later reverted to the prototypical Leninist conviction that the revolution should be organised in a centralistic manner by an avant-garde of professional revolutionaries. He now vehemently criticised council communism as an 'infantile disorder'.⁵⁸ When it comes to assessing *Pan* as a *philosophical* poem, as thinking poetry, Lenin's *Materialism and Empirio-criticism* provides an optimal benchmark, an intellectual marker, allowing us to determine Gorter's position in the international intellectual landscape. For whereas Gorter's explicit polemics with Lenin (his *Offener Brief*, their verbal disputes in Moscow, etc.) concerns issues of revolutionary politics, *Pan* envisions the dialectical materialistic worldview as such. And for this, Lenin's most philosophical work, extensively criticised by Gorter's friend and comrade Anton Pannekoek,⁵⁹ provides an optimal comparison.

***Pan* and dialectical materialism 2: W. I. Lenin**

In *Materialism and Empirio-criticism*, Lenin aims to update dialectical materialism via a polemical review of the theories of Ernst Mach, Richard Avenarius and other 'empirio-critics'.⁶⁰ His book echoes Engels' polemical review of Eugen Dühring's work, published in 1878. I will first concisely summarise the debate and subsequently indicate how Lenin's views allow us to trace the dialectical logic in Herman Gorter's poetic-philosophical itinerary, which brought him from sensitivism via Spinozism to dialectical materialism, and finally to *Pan*.

The aim of the empirio-critics was to develop a new epistemology (a new theory of human understanding) to replace pre-scientific, 'metaphysical' conceptions by science-compatible ones. Empirio-critics regard 'sense data' (i.e. impressions, observations, sensations, affections and

⁵⁷ In 1920, Herman Gorter, together with Karl Schröder, travelled to Moscow. After an epic and exhausting journey, hiding as stowaways in a boat, Gorter defended council communism during a meeting with the Komintern. Lenin had not read Gorter's letter addressed to him, however, and Trotsky systematically disputed his arguments. During the Third Congress of the Komintern in Moscow (in 1921), Karl Radek formally derided council communism (and Pannekoek and Gorter in particular) by saying 'Der eine ist Astronom, guckt nur nach den Sternen, sieht nie einen lebenden Arbeiter, der andere ist Philosoph und Dichter dazu' (Liagre Böhl, 'Herman Gorter en Lenin', p. 356, 359).

⁵⁸ Wladimir Iljitsch Lenin, 'Der "linke Radikalismus", die Kinderkrankheit im Kommunismus', in *Werke* 31 (Berlin: Dietz Verlag, 1920/1960), pp. 1-91; Herman de Liagre Böhl, 'Herman Gorter en Lenin'.

⁵⁹ Anton Pannekoek, *Lenin as Philosopher: A Critical Examination of the Philosophical Basis of Leninism* (New York: Marquette University Press, 1938/2003).

⁶⁰ Wladimir Iljitsch Lenin, 'Materialismus und Empiriokritizismus: kritische Bemerkungen über eine reaktionäre Philosophie', in *Werke* 14 (Berlin: Dietz Verlag, 1908/1979).

the like) as the primary starting point of human knowledge and reject the materialistic ('metaphysical') idea that these impressions are produced in us by material things existing in the outside world, independent of human consciousness. There is *nothing* beyond experience, they argue, no environment without a subject who experiences it. By positing the existence of things beyond sensation, materialism gives rise to an unnecessary duplication ('Verdopplung') of the world (p. 13). The material world posited by materialism is discarded as a mystification. According to Lenin, however, by regarding objectivity as a mere product of human subjectivity (by considering the world as a product of human consciousness), these empiriocritics 'plagiarise' (p. 35) the views of eighteenth-century bourgeois idealist George Berkeley, who already denied the existence of an outside world, considering it an illusion and claiming that *being* equals *being-perceived* (*Esse est percipi*). Our experiences and sensations are produced in us: not by external things (via our sense organs), Berkeley argued, but by God. In short, according to the empiriocritics, we only experience experiences ('Wir Empfinden unsere Empfindungen'),⁶¹ while things are merely seen as 'complexes of experiences'. The world basically is what I experience ('Die Welt ist meine Empfindung').⁶² The existence of non-thinking substance outside human consciousness is systematically eliminated.⁶³

According to Lenin, however, dialectical materialism should hold on to the existence of a material world independent of human consciousness. We experience the existence of external reality primarily by interacting with it, in an active, practical manner, via labour, Lenin argues. Human praxis (labour) is our primary source of experience, and this convinces us that the world out there really exists. At the same time, Lenin is clearly aware of the crisis raging in physics, due to revolutionary discoveries such as X-rays and radioactivity. The material world (e.g. the atom as a basic material entity) seems to evaporate, to dissolve into radiation. Thus, whilst being aware of the challenge to update dialectical materialism, Lenin nonetheless argues that *materialism* should remain the starting point. Critics⁶⁴ have highlighted a number of weaknesses of Lenin's review. Besides the polemical (non-academic) tone of voice and selective reading style, the positive part (i.e. the task of providing an updated version of dialectical materialism that allows Marxism to address the challenges entailed in modern science) is less well developed (and less convincing) than the negative part (criticising Empiriocriticism). Still, his treatise provides us with a benchmark for assessing the intellectual aspirations and tensions of Gorter's masterpiece.

A dialectical unfolding can be discerned in the Materialism-Empiriocriticism debate. The first moment (M₁) is the early-modern (metaphysical) position represented by Spinoza's *Ethica*. Whereas Descartes had developed a dualistic view – dividing the world into extended things (*res extensa*) and thinking things (*res cogitans*, the realm of human consciousness) –, Spinoza argued that the world is one (that the universe is a thinking and extended whole: *substantia infinita extensa et cogitans*).⁶⁵ He posited the existence of *one* substance (*Deus sive natura*) with two attributes known to us, namely thought and extension (mind and body).

⁶¹ Lenin, *Materialismus und Empiriokritizismus*, p. 35.

⁶² Lenin, *Materialismus und Empiriokritizismus*, p. 61.

⁶³ Lenin, *Materialismus und Empiriokritizismus*, p. 17, p. 51.

⁶⁴ Including Pannekoek, *Lenin as philosopher*.

⁶⁵ This phrase is the opening line of Gorter's first Spinozist poem (Gorter, *De School der Poëzie*, p. 237).

This first moment (Spinoza's rational metaphysics) is 'negated' by idealism (the second moment: M_2), for which, as indicated, Empiriocriticism provides a fin-the-siècle update. By claiming that we only have access to the world of sense data, the existence of a material, substantial world (independent of human consciousness) is *negated* and discarded as a metaphysical illusion. We are not entitled to posit the existence of things outside (independent of) human experience. M_2 entails the *negation* of the substantial (material) dimension of the world.

The subsequent challenge of material dialectics (as acknowledged by Lenin) is to develop a position which *negates* and *sublates* both substantialism (M_1) and idealism (M_2). Dialectically speaking, this amounts to a 'negation of the negation' (M_3). And this is achieved *not* by simply reverting to early-modern metaphysics (M_1), but by *overcoming* both antithetical positions. To do this, we must come to terms with the revolutionary and unsettling insights produced by twentieth-century science. Rather than relapsing into metaphysical conceptions, Marxists should develop a science-compatible version of materialism. Dialectically speaking it is clear that both the first moment (M_1) and the second moment (M_2), both substantialism and idealism, have something in common. They both still take the phenomenal world of human experience as their starting point, and the question basically is whether or not it is admissible to posit the existence of a material world beyond human consciousness. With the help of powerful mathematics and highly advanced technologies, however, twentieth-century science had opened up completely unknown and unimaginable dimensions of the world, far beyond the confines of human understanding: the extremely small world of molecules, atoms and elementary particles (studied by modern chemistry and quantum physics) and the extremely large world of galaxies evolving in spacetime (studied by astrophysics). It is only by coming to terms with science in both directions (the hyper-small and the hyper-large) that Marxism may develop a 'sublated' understanding (a negation of the negation). This third position neither opts for traditional materialism (since the material world as we know it from every-day experience, and as it is studied by classical physics, is obliterated and eliminated by quantum physics and astrophysics) nor for idealism or Empiriocriticism (the initial 'negation' which is now itself negated by this third position). Contemporary technoscience discloses an unknown world existing beyond the confines of human consciousness and sensitivity, a world which is unimaginable and imperceptible, defying the basic structures of human experience, and only accessible via advanced mathematics and scientific technicity. Lenin's book, one could argue, represents a moment of transition (hovering somewhere between M_2 and M_3). He emphasises (in a polemical manner) the short-comings of Empiriocriticism, is clearly aware of the need for a third dialectical step, but without being really able to make this leap himself. The challenge of developing a credible dialectical materialist worldview for the twentieth-century is taken up by Gorter, the author of *Pan*.

This dialectical scheme allows us to discern the logic at work in Gorter's intellectual development. As a young poet, Gorter's poetry conveys a world-view or zeitgeist which corresponds with the philosophy of Empiriocriticism. 'Bourgeois' aestheticism, sensitivism and impressionism (i.e. the poetry of the Tachtigers) is *contemporary to*, but also the poetic-aesthetic *equivalent of* the epistemology of Mach, Avenarius and their followers. Both for Gorter and for Mach, the impressions, sensations and affections experienced by the ego constitute the starting point, and this applies both to poetry (the Tachtigers) and to science (the Empiriocriticists). Gorter's stance as a poet during this episode concurs with what was depicted above as the second

moment (M₂): his poetry articulates the experiences of an ego experiencing his own experiences, recording them in verse. His world basically is what *he* experiences.

Dissatisfied with his ego-centric, sensitivistic position, Gorter initially seeks a way out of the dead-lock by 'relapsing' into Spinozism (a metaphysical 'regression', dialectically speaking, a move backwards towards M₁), endorsing the view that the world is one substance. We find this position articulated in *Pan* as well, in lines such as 'the world is one mighty whole' ('Het Heelal is een machtig groot geheel'), encompassing both spirit ('Geest') and matter (down to pecks of dust and crystals), while God is the source of everything.⁶⁶ Eventually, however, Gorter realises that, in order to become a *great* poet, he should develop a position which articulates a worldview for the twentieth century, and this entails a major challenge (especially for a classical language scholar like Gorter, without significant scientific training), namely: coming to terms with twentieth-century science. Thus, overcoming both sensitivism (the poetic counterpart of Empiriocriticism) and Spinozism (his initial route of escape), he envisions *Pan* as a poetical contribution to dialectical materialism (a poetic rival as it were to Lenin's *Materialism and Empiriocriticism*). For Herman Gorter, poetry (the 'school of poetry') helps us to develop a scientific (i.e. dialectical materialist) understanding, not only of society and politics, but also of nature as such, both on the micro-scale of crystals, molecules and atoms and on the macro-scale of galaxies in spacetime. This concurs with Gorter's understanding of the advent of communism as a cosmic event.⁶⁷

And this is why, after being aroused from his flute-playing dream-life by the Golden Girl, Pan must descend from his sublime mountain ambiance to enter the noisy world of industry. The modern factory represents the urban counterpart of the mountainous sublime because, as Sonnenschein⁶⁸ rightly points out, this is the place where matter, on a massive scale, is sublated and sublimated by human labour into something astonishingly new. By visiting a modern factory (the 'urban sublime'),⁶⁹ Pan/Gorter becomes conscious of the power of human labour as an epochal, transformative force, completely remodelling the substance of nature: a radically new manifestation of *natura naturans*. The factory is the ambiance where nature (*natura naturata*) becomes man-made.

To elaborate this further, in the next two sections special attention will be given to two recurring motifs in *Pan*, symbolising on the one hand the hyper-small world of molecules and atoms (exemplified by the motif of the *crystal*) and on the other hand the hyper-large world of spacetime galaxies (exemplified by the motif of the *universe*). As indicated, these motifs (key signifiers) concur not only with two revolutionary scientific events (the emergence of quantum physics and relativity theory), but also with two important post-1900 friendships: his liaison with Ada Prins (expert in liquid crystal chemistry) and his comradeship with Anton Pannekoek (expert in astrophysics and galaxy research).

⁶⁶ Gorter (1916/1951), p. 157; Gorter (1916), p. 175.

⁶⁷ Ton Brouwers, 'Herman Gorter: Pan', in *Lexicon van literaire werken*, 82 (2009), https://www.dbnl.org/tekst/anbeo01lexio1_01/1vlw00222.php [accessed 26 March 2019].

⁶⁸ Johan Sonnenschein, *Kentering wending knik: Dynamiek in modern dichterschap* (Amsterdam: UVA, 2012); Sonnenschein, 'Arbeid, strijd, schoonheid'.

⁶⁹ Sonnenschein, 'Arbeid, strijd, schoonheid'.

Poetry and science 1: 'crystal' as key signifier

Herman Gorter's personal life during the first decades of the twentieth century was a complicated story involving two mistresses and a legal wife.⁷⁰ From 1901 onwards (until his death in 1927), he had an affair with Ada Prins, the first woman in the Netherlands to earn a Ph.D. in chemistry (at the University of Amsterdam) in 1908. At first glance, Gorter's liaison with Ada seems a highly unlikely one (a confirmation, if you will, of the famous adage that opposites attract). Gorter came from a family of theologians and bible scholars (his father had published on Jeremiah) and was trained in classical studies (his thesis dealt with metaphors in Aeschylus). He had no talent for mathematics⁷¹ and received no formal training in modern science, beyond introductory secondary education at the Amsterdam gymnasium, with a strong focus on Greek and Latin, fifteen hours a week.⁷² How to explain the erotic bond between a late-Romantic poet-classicist and a modern chemistry expert, an exact scientist?

For Gorter, Ada was much more than the traditional ('bourgeois') poetic Muse whose erotic charms were immortalised in poetry. He first and foremost appreciated her as a chemist. Friedrich Engels already presented chemistry as the dialectical science par excellence: the science of material change, reflecting how the laws of dialectics not only apply to society and history, but to molecular nature as well.⁷³ Gorter himself likewise saw the 'chemical test station' ('het wetenschappelijke chemische proefstation') as the apex of human inventiveness.⁷⁴ From a scientific viewpoint, Ada's work was quite remarkable and reflected the extent to which twentieth-century chemistry had moved beyond the *phenomenal* surface of reality to reveal the *noumenal* essence of matter and change. Whereas (as indicated) empirism and bourgeois poetry emphasised the outward, sensitive, phenomenal aspects of nature, twentieth-century chemistry purported to open-up the noumenal, molecular dimension of reality via symbols, formula and equations, in a much more rigid, precise and detailed manner than Spinoza's *Ethica* had done.

Ada's thesis, entitled *Vloeïende mengkristallen in binaire stelsels* ('flowing mixed crystals in binary systems') was devoted to liquid crystals, a hot scientific topic at that time. Liquid crystals drew the attention of chemists notably because they seemed to constitute the intermediary stage between inorganic and organic nature. Because their form and behaviour mimicked elementary organic structures, they were described as 'apparently living crystals'.⁷⁵ Although most of the work was done in Germany, liquid crystals also caught the attention of Dutch researchers such as Professor Hendrik Willem Bakhuis Roozeboom (1854-1907) of the University of Amsterdam, who asked his talented student Ada Prins to investigate some aspects in more detail. As he died in 1907, his successor (Andreas Smit) became her supervisor and she successfully defended her thesis in 1908. Triggered by Ernst Haeckel (who compared liquid crystals to living cells), German experts such as Otto Lehmann (1855-1922) were convinced that liquid crystals had played a role in the origin of life because they seemed to move, grow, spread and recuperate in ways

⁷⁰ Gorter, *Geheime geliefden*.

⁷¹ Stuiveling, 'Kroniek van een hartstochtelijk leven', p. 19, 20.

⁷² Stuiveling, 'Kroniek van een hartstochtelijk leven', p. 19.

⁷³ Engels, *Dialektik der Natur*.

⁷⁴ Gorter, 'Het historisch materialisme voor arbeiders verklaard'.

⁷⁵ Harry Snelders, 'Zijn vloeibare kristallen levende organismen?', in *Gewina*, 20 (1997), pp. 129-142

comparable to bacteria. Liquid crystals allegedly displayed a formative force,⁷⁶ in accordance with Haeckel's theory that crystals were animated entities endowed with a soul (an *Atomseele* or atom-soul). This scientific version of pan-psychism concurred with Spinoza's idea that all entities are part of the world-substance, with *body* and *soul* as attributes. Friedrich Rinne (1863-1933) even considered sperm cells as liquid crystals,⁷⁷ thereby again emphasising their possible role in the origin of life.

Interestingly, crystals were not only the focus of Ada's research, but also a key signifier in Gorter's opus magnum.⁷⁸ Here are a few examples (the translations are again my own):

<p>En zoo daalde Pan langzaam naar de aarde, Trapsgewijze, naar hare groote gaarde, Uit het klare en kristallen kristal. En eerst kwam hij, in het oneindig licht, In het doorstreepte kristal waar de Goden Zich nog schoon en schemerachtig ophouden...⁷⁹</p>	<p>And thus, Pan descended towards the earth Stair by stair, towards her great garden Out of the crystal-clear crystal. And initially he came, in the infinite light, In the striped crystal where the gods Still beautifully and dimply dwell</p>
<p>En Pan hoorde toen de oneindige mensen In 't oneindig Heelal, en zonder grenzen, Hoog in het donkerblauw eeuwig Heelal, In zijn oneindig lichtende kristal. En hij daald' neder naar de donkre menschen Uit het Heelal, uit de oneindige grenzen Van het Licht, der Muziek, en uit de Vrijheid Der Natuur, het oneindige Heelal, Het eeuwig bloeiende Natuurkristal...⁸⁰</p>	<p>And Pan discerned infinite humanity In the infinite, boundless universe High-up in dark-blue space In its infinitely bright crystal, And he descended towards dark humanity From the Universe, from the infinite limits Of Light, of Music, and from the Freedom Of Nature, the infinite universe, The eternally flourishing nature-crystal</p>
<p>Zoo zag ik de slaven gaan. Als stralende kristallen. Wat zijn d' Arbeiders anders dan kristallen? Welk onderscheid is tusschen hen en kristallen? Men zegt het leven. Leven kristallen niet?⁸¹</p>	<p>Thus, I saw the slaves move on, like bright crystals For what would the workers be but crystals What would be the difference between them and crystals? Life, they say. Aren't crystals alive?</p>

⁷⁶ 'Gestaltungskraft': Snelders, 'Zijn vloeibare kristallen', p. 143.

⁷⁷ Snelders, 'Zijn vloeibare kristallen', p. 140.

⁷⁸ 'Toen naar het natuurhistorisch museum. Daar zijn reusachtige kristallen... een eindeloze massa kristallen' [Next to the natural history museum where they have immense crystals... innumerable crystals] (Letter to Ada 14 May 1907, in Gorter, *Geheime geliefden*, p. 108).

⁷⁹ Gorter (1916/1951), p. 47; Gorter (1916), p. 26.

⁸⁰ Gorter (1916/1951), p. 63; Gorter (1916), p. 43.

⁸¹ Gorter (1916/1951), p. 114; Gorter (1916), p. 116.

The crystals in *Pan* play a role comparable to the three-dimensional atoms in Plato's *Timaeus*, but now in the revolutionary context of twentieth-century science. Crystals exemplify physical and chemical perfection, as gleaming, almost-living particles. Amidst a messy terrestrial ambiance, glittering crystals emerge as mineral stars or flowers.

Moreover, according to dialectical materialism, continuity can be discerned, not only between inorganic and organic nature (between the crystal and the living cell), but also between nature and society, between the natural crystal and the societal crystal, i.e. the proletarian worker, between *kristal* and *arbeider*. Both workers and crystals are elementary living substances, are bodies and souls, and workers are driven by the same dialectical laws as inorganic crystals:

Gij moet het socialisme brengen. Gij moet de nieuwe wereld maken. Gij moet zelfs als gij niet wilt, maar gij moet Maar gij wilt omdat gij moet. - De daden van de menschen zijn bepaald, En de uwe zijn bepaald, door d' maatschappij. De krachten, de productiekrachten... ⁸²	You must bring about socialism, You must produce a new world, You must, even if you do not want to, you must. But you want because you must. - Human action is determined, And your actions are determined, by society, The forces, the forces of productivity...
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Workers are envisioned in *Pan* as crystals: they are the brightly shining, crystal atoms of society.⁸³ In the communist society of the future, they will no longer be dragged along by the unrestrained movements of machines as 'scattered atoms' (cf. Gorter 1908) but will fit perfectly into the immense meeting palaces of the people,⁸⁴ as the elementary building blocks (στοιχεία) of communism, conceived as a form of social engineering: a crystallography or choreography of the masses, turning society into a dialectic-materialistic artwork. During the violent uprising, these proletarian crystals are consumed by fire, but in the paradisiacal future state, the dance of the communist workers is carefully orchestrated: spontaneous yet mechanical and in accordance with nature (κατὰ φύσιν), for dialectical materialism purports to explain not only socio-political dynamics, but also the dynamics of nature as such, as we have seen. Thanks to the coming of the communist revolution, the whole universe will participate in this transfiguration, will spiral towards perfection, while the proletariat crystallises into perfection via processes of sublimation and spiritualisation:

En Pan ging naar eene Vergadering, Wereldvergadering, uit alle landen Waren er arbeiders samen gekomen... En die Arbeiders waren Geest geworden. Vroeger waren zij Lichaam. Lichaam in De Fabriek, in het Werk, in Maatschappij,	And Pan joined a meeting, A global summit, from all over the world Workers had congregated, And they had become spirit. They had been corporeal: had been a body in The factory, in labour, in society,
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⁸² Gorter (1916/1951), p. 163; Gorter (1916), p. 181.

⁸³ Roland Holst van der Schalk, *Herman Gorter*, p. 139.

⁸⁴ An anticipation, one could say, of how delegates of the 19th National Congress of the Communist Party of China fitted perfectly into the giant meeting hall.

In Slavernij. Zij hadden hun lichamen weggeworpen En zaten nu samen ter vergad'ring. ⁸⁵	In slavery. They had discarded their bodies And sat together now in congregation.
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The whole world becomes one, transforms into an immense, world-spanning industrial web of factories:

Duizenden werkplaatsen in het Heelal... Werkplaatsen van een wonderbare Schoonheid Vervulden wijd uiteen de schitterende Woonsteed. De Aarde was geworden één Werkhal, Prachtig, in der Natuur oneindige zaal. Werkplaatsen in het Licht. Er waren niet meer Steden, maar het Heelal was als één sfeer Van Natuur en van de Plaatsen van Arbeid Met de Natuur gemengd tot ééne klaarheid ⁸⁶	Thousands of workshops in the Universe... Workshops of miraculous beauty Filled the glittering, planetary homestead. Planet Earth had become one Factory, Splendid, in the immense hall of nature, Factories brightly lit. Cities no longer Existed, for the universe had become one sphere Of Nature and of places of labour Blended with nature into lucidity.
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Society and nature become unified through labour, the whole universe becomes one 'sphere', one congregation,⁸⁷ transfiguring overnight into a noosphere, as Teilhard de Chardin⁸⁸ once phrased it: a world-wide web of technicity, solidarity and connectivity. Poetry and science converge in harmony (p. 398/447), the global human organisation illuminates the Earth (p. 401/452) and the international congregation of communist workers will become a splendid world summit ('The whole Earth was one construction / Humanity was one construction / The Spirit of Humanity was one construction', etc. p. 401/452).

Before that glorious point will be reached, millions must die (and, according to Gorter's poem, they *want* to die because they *must*). A whole generation of workers is sacrificed during the massive uprising, the final struggle, claiming millions of casualties, countless nameless workers who, during cataclysmic Canto IV, are gunned down like flowers (p. 352/395 ff.). For dialectical materialism this is necessary to bring about everlasting beatitude for future generations, for those human atoms who survive the killing fields, the bottleneck event, staged in *Pan* as a massive, Commune-like revolt (although the number of casualties is multiplied by the spontaneous and disorderly nature of their uprising). The bleak night precedes the glorious dawn of an everlasting terrestrial state of bliss (Spinoza's supreme state of being), when technology is no longer a monstrous enemy (as under Capitalist conditions) but a force of liberation.⁸⁹

⁸⁵ Gorter (1916/1951), p. 191; Gorter (1916), p. 214.

⁸⁶ Gorter (1916/1951), p. 396; Gorter (1916), p. 444.

⁸⁷ Gorter (1916/1951), p. 396; Gorter (1916), p. 444.

⁸⁸ Pierre Teilhard de Chardin, *The Phenomenon of Man* (New York: Harper, 1955).

⁸⁹ Cf. Gorter, 'Het historisch materialisme voor arbeiders verklaard'. In the past, technology was a disruptive force but under socialism, it will no longer produce disasters.

In twentieth century science, the focus of crystallography would shift from liquid crystals to DNA molecules as primal target. For quantum physicist Erwin Schrödinger, the genome replaced liquid crystals as the bridge between the organic and the inorganic.⁹⁰ But Ada's liquid crystals acquired worldwide fame again thanks to high-tech electronics (as Liquid Crystal Display), a development which even Pan could not imagine. In the next section, our focus will shift from crystal chemistry to galaxies in spacetime, from *kristal* to *heelal*, – although quantum physics and astrophysics (the crystal and the universe) remain intimately connected, in contemporary physics as well as in *Pan*.⁹¹

Poetry and science 2: Galaxies in spacetime

The importance of *kristal* and *heelal* as key motifs is already apparent in the opening lines of *Pan*, right after the *Prelude* ('Voorzang'):

In donkerblauwe spanning staat 't Heelal Het smartenrijke, vreugddoorgoud Heelal, het eeuwige, oneindige Kristal. ... Het was of de atomen van hem weken, Van zijn lichaam, tot in de verste streken. En zijn gestalte was even eenzaam Als het Heelal en slechts daarmee gemeenzaam. ⁹²	In dark blue tension stands the universe, The sorrowful, joy-gilded universe, The eternal infinite crystal. ... It was as if the atoms departed from him, From his body, into the distant realms And his figure was as lonely As the universe and affiliated only with it.
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Pan is sensitive to the imminent turn about to unfold: the total mobilisation, *die totale Mobilmachung*, as Ernst Jünger phrased it,⁹³ of workers as social crystals, which sets the astral force field in a state of tension. A mood of *panic* is discernible, pointing to the unfolding of something threatening and devastating. This is not an individual, ego-centric experience (a mere impression or sensation) but something which engages Being (the universe) as such. And Pan

⁹⁰ Erwin Schrödinger, *What is Life? The Physical Aspect of the Living Cell* (London: Cambridge University Press, 1944/1967); cf. Hub Zwart, The Genome as the Biological Unconscious – and the Unconscious as the Psychic 'Genome'. A Psychoanalytical Rereading of Molecular Genetics, in *Cosmos and History: Journal of Natural and Social Philosophy*, 9 (2013), pp. 198-222.

⁹¹ 'In their quest for the origin of life, ... people start at the side of the tiny elements. But isn't it more plausible that the universe as such is what causes life?... It seems to me that the universe is an immense electrical force field which produces everything... We look for extremely small causes, but there are big causes too. Science, chemistry, physics, they are lost in the very small and forgetful of the immense, the all-encompassing and the almighty. Surely, one should not focus only on the big, but acknowledge the small as well. But to focus solely on the small would be as untrue as to become fixated solely on the very big... As soon as the all-encompassing society has arisen, we will once again discern the big, all-encompassing causes of everything. This is what Pan is contemplating' (Letter to Jenne, June 16 1914, in Gorter, *Geheime geliefden*, p. 268).

⁹² Gorter (1916/1951), p. 29; Gorter (1916), p. 5-6.

⁹³ Ernst Jünger, *Die totale Mobilmachung*, in *Sämtliche Werke*, Band 7 (Stuttgart: Klett-Cotta, 1930/1980), pp. 119-142.

not only dwells in the Alps, but also among the galaxies as ‘astronaut’,⁹⁴ or cosmonaut. Gorter’s thinking poetry aims to resonate with the entirety of nature (a Spinozist ideal). Pan is the god of nature and music who, with soft calls, immerses the world with unconscious music (‘Pan, de oudste God, de God van het Heelal / En van de muziek, die met zoeten schal / De wereld vervult, muziek onbewust’). I will now highlight two excerpts concerning the astral universe (*Heelal*, usually spelled with a capital H). The first one is more traditional (seeing the universe as the place where a female deity dwells), the second more modernistic (reflecting the spacetime concept of contemporary astrophysics):

<p>En nu zie ik mijn nieuwe liefde, Die zich ontweefde Aan het kristal Van mijn oogen, door het Heelal Gaan, alsof een Wezen daar zweefde, En ik roep uit met zachten schal: ‘Wie zijt gij, mijne liefde?’⁹⁵</p>	<p>And now I see my new love, Which unweaved itself From the crystal of my eyes, through the universe moving, as if a being floated there, And I call out with a soft echoing call: ‘Who art thou, my love?’</p>
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This section (from the *Prelude*) might still be regarded as a Romantic lyrical passage, concurrent with ‘bourgeois’ poetry if you like, projecting an archetypal anima-like figure into empty space, a moonlike image or voice addressing the poet, inciting him to follow her. As *Pan* unfolds, however, a rival image emerges, reflecting an epistemological rupture and lifting *Pan* onto a post-bourgeois, science-compatible plateau:

<p>En duidelijk zag ik de lichte Sterstelsels En de donkre, en hun klare maalstroomen, En hoe hun maalstroom was het groot Heelal. En ik zag hoe het Licht werkte in 't Heelal: Stroomen van Licht gingen er door de ruimte, Vloeden en terugvloeden, ebb en keer. - Stroomen van Licht door de Oneindigheen Stuwden de stof heen voor het Lichten uit, Verzamelden de stof door kracht des Lichts, Deden oplichten Werelden door 't Licht. - De stof ebde wanneer het licht verstierf, De stof viel uiteen achter het licht aan. - De donkre stof werd opgestuwd tot licht, Als schoone vlam, als baken in 't Heelal. Het stof viel uiteen tot een donkren hoop, Als blaadren in den herfst, in het Heelal. -</p>	<p>And clearly I saw the bright galaxies And the dark ones, and their clear maelstroms And how their maelstrom was the immense universe And I saw how the light worked in the universe Streams of light went through the universe Flowing back and forth, ebb and return – Streams of light through the infinities Propelling matter, pushing it ahead of the light, Assembling matter through the force of light, Making worlds light up by the light. – Matter ebbed away when the light died away, Matter disintegrated in the slipstream of the light. – The dark matter was impelled into light, Like a bright flame, a beacon in the universe. Matter disintegrated into a dark heap, Like leaves in autumn, in the Universe. –</p>
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⁹⁴ Sonnenschein, ‘Arbeid, strijd, schoonheid’, <https://de-gids.nl/2018/no5/arbeid-strijd-schoonheid> (accessed 3 April 2019).

⁹⁵ Gorter (1916/1951), p. 23; Gorter (1916), p. 11.

Werelden vergingen en brandden op, Weg in 't Heelal, weg voor goed in de ruimte. Werelden schitterden in een nieuw licht, Stralend in jeugd en van onsterflijke Schoonheid: Het Heelal. ⁹⁶	Worlds passed away and burned away, Away in the Universe, forever lost in space. Worlds glittered in a new light, Gleaming in youth and of imperishable Beauty: the Universe
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This section, decidedly modern, envisions the universe not as a dark screen onto which phantasmagorical images are projected, but as an electro-magnetic force field. In these lines, Gorter aspires to capture the twentieth-century vision of the universe in verse. The interaction between matter and light reflects Einsteinian views about the equivalence of energy and mass. The universe is not a visible universe (opened up by early-modern telescopes using glass lenses), but an audible, acoustic universe,⁹⁷ studied by technically more advanced telescopes using sound waves: a universe where space and time, light and matter interact in complex ways and are intimately interconnected, and where everything is continuously in motion and continuously changing.

Like in the realm of crystals, there is continuity between the natural and the socio-political realm. The organisation of humanity 'transubstantiates' to become one with the universe-formation ('En met een zachte geweldige transsubstantiatie / Zagen zij der Menschheid organisatie / Meer en meer één worden met de heelalformatie', p. 420/474). In the end, humanity's Earth becomes one crystal, revolving in spacetime (p. 428/485) amidst a brightly shining universe. After centuries of estrangement, the antithetical divide is now sublated and poetry and science converge, disclosing one and the same truth.

Assessment

The reception of Gorter's *Pan* was critical from the very outset. With a few exceptions, Gorter's remarkable but challenging poem was deplored, ignored or considered a 'magnificent failure'.⁹⁸ During Gorter's lifetime, only a few hundred copies of his poem were sold and the number of readers who really *read* his monumental poetic edifice remains quite limited up to this day. My aim was to reread *Pan* as 'thinking poetry', i.e. as an effort to come to terms with the societal and intellectual challenges of the twentieth century.⁹⁹ From this perspective, some of its weaknesses may now emerge in a different light.

This first of all applies, I would argue, to the repetitiveness of Gorter's core vocabulary. A limited number of key signifiers (*star*, *crystal*, *golden*, *universe*, etc.) appear time and again, but

⁹⁶ Gorter (1916/1951), p. 119; Gorter (1916), p. 123.

⁹⁷ Hub Zwart, *Filosofie van het luisteren: partituren van het Zijn* (Nijmegen: Vantilt, 2012)

⁹⁸ R. Meijer, *Literature of the Low Countries* (The Hague/Boston: Nijhoff, 1978), p. 262.

⁹⁹ In her comprehensive historical overview of Marxism and science, Helena Sheehan points out that Gorter, in his version of dialectical materialism, 'seemed to leave the realm of natural science outside its scope' (Helena Sheehan, *Marxism and the Philosophy of Science: A Critical History (the first hundred years)* (London/New York: Verso, 2017), p. 254). He did address the dialectics of nature quite extensively, I would argue, albeit not in his political prose, but – in *Pan*.

they operate as discursive atoms, as elementary particles (στοιχεία) of Gorter's poem. Their repetitiveness reflects a tedious process of working-through ('*Durcharbeiten*'), concurrent with Gorter's understanding of poetry as training, and bear witness to his frantic efforts to act-out his radical conversion from aesthetic impressionism to science-oriented modernism.

Notwithstanding its classic structure (as a poem consisting of five Cantos), *Pan* suffers from compositional flaws, critics argue, but the question is whether an aspiration that was realisable for Dante (capturing a whole worldview consistently in verse) was still conceivable in a twentieth century setting. In other words, the author's sense of despair seems an inevitable part of an artwork which endeavours an impossible task,¹⁰⁰ while for Gorter it would have been impossible not to face the impossible challenge. During the first decades of the twentieth century, the world as such lost its coherence, both from a political and from a scientific perspective, and poetry could no longer repair this disruptive crisis. The task of poetry could no longer be to reconcile us with our ambience, as bourgeois poetry would aim to do, namely by providing aesthetic pleasure as compensation. Gorter's poetry is imbued by the poet's inevitable inability to repair a universe adrift, whose basic constituents (time, space and matter) evaporate. Against this backdrop, *Pan* conveys an atmosphere of existential *panic* because this is what a modern work of art should do, even if this involves occasional derailments and desperate stammering. As Sonnenschein argues, Gorter actively disrupts the apollonian qualities still discernible in the 1912 version of his poem.¹⁰¹ In 1916, he no longer wants *Pan* to be beautiful. *Pan*'s existential panic reflects the world's unsettling dynamics. *Pan* represents the disruptive co-productivity of poetry and science, labour and politics *in progress*, rather than a finished artistic whole.

Flaws and inconsistencies symptomatically reflect that the grand idea which Gorter desperately tried to realise, proved uncontainable, to such an extent that his physical and mental well-being was undermined by it, resulting in multiple health problems: nervousness, stomach problems, skin problems (chronic eczema), heart problems (angina pectoris) and so on. During the *Pan*-years, the former sportsman describes himself as fragile, exhausted and weak. He fell victim to an impossible task and to the global eruption he set out to versify.¹⁰² What applies to Gorter also applies to authors such as Nietzsche and Pound: upholding the compositional unity of their artwork became an unachievable task.

Pan reflects what in Marxism is known as the simultaneity of the non-simultaneous (*Gleichzeitigkeit des Ungleichzeitigen*). The collision of classes (capitalists and workers) is also a collision of worlds: the 'old' world of romantic bourgeois aestheticism and the new world of industrial labour and revolutionary politics. In the poetry of the 1880s, the world of machines and industry had remained invisible. While depicting solitary landscapes of meadows and dunes, this brand of lyricism avoided ('repressed') the era's socio-economical dimension. Gorter (a Romantic poet who grew up in a world of Mennonite pastors) consciously exposed himself to the modern era of world politics, science and industry, and desperately tried to familiarise himself with the scientific mind-set. Yet, although he felt awed by technology, mass politics and modern science, he at the same time remained an outsider. Still, although Marsman criticises the

¹⁰⁰ 'It is insufficient compared to the immensity of what I aimed to represent, namely the current era and its struggle, but alas I cannot do better' (Letter to Jenne May 17 1914, in Gorter, *Geheime geliefden*, p. 263).

¹⁰¹ Sonnenschein, 'Arbeid, strijd, schoonheid'.

¹⁰² Gorter, *Geheime geliefden*, p. 372.

incongruency between the giant figure of Pan and the proletarian masses, *Pan*'s singular aesthetics actually foreshadows the aesthetics of communist mass theatre, of social realism and agitprop, with its giant figures representing workers and their heroes (Prometheus, Stakhanov, Marx, Engels, etc.).

Pan is dialectical materialism in verse. Pan/Gorter is a participant observer, straying far away from his comfort zone (the bourgeois world of nineteenth-century aestheticism) into an ambiance of modern industry and mass political struggle, where the ground was being prepared for emerging totalitarian movements (e.g. communism and fascism). As a lyrical poet, he experienced great difficulties in developing a credible tone of voice to capture this disruptive, violent world, driven by a relentless increase of pace and scale. What makes *Pan* so strangely appealing (to some readers at least) may be precisely this: the poet's impossible position hovering between lyric poetry and political and scientific modernism. Although Gorter's poem may strike us as beautiful at times, it first and foremost presents an intimidating soundscape of desperate, ruinous fragments of astonishing monumentality, an artwork of the future (*sui generis*), envisioning the post-cataclysmic era in pastoral terms. *Pan*'s basic aim is to contribute to the unfolding of a dialectical materialist worldview by mutually exposing twentieth-century science, politics and poetry to one another, in order to reveal how science and art, poetry and class struggle, crystals and spacetime galaxies become intimately interwoven. Eventually, *Pan* celebrates a tremendous liaison, where not only nature (Pan) and humanity (the Golden Girl), but also science, politics and poetry are 'lost in each other'.

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About the Author

Prof. Dr. Hub Zwart (1960) studied philosophy and psychology at *Radboud University Nijmegen*. In 2000, he was appointed Professor of Philosophy at the *Faculty of Science* of Radboud University where, in 2005, he became founding Director of the *Institute for Science in Society*. In October 2018 he was appointed as Dean of *Erasmus School of Philosophy* (ESPhil) at Erasmus University Rotterdam (EUR). His research addresses philosophical issues emerging in contemporary science from a continental perspective: dialectics (Hegel), phenomenology (Heidegger) and psychoanalysis (Bachelard, Lacan). Special attention is given to genres of the imagination (poetry, novels, drama, cinema, music) as windows into the philosophical and societal dimensions of science. He published 15 books (5 in English), > 100 first or single author academic papers and presented >150 international lectures. He was visiting professor at St. John's (Canada), Nagasaki (Japan), Seoul (Korea) and Ghent (Belgium). He is editor-in-chief of the series *Ethics and Applied Philosophy* (Springer).